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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/765,182 | 01/28/2004 | Shinji Kajita | 2004_0120A | 9850 |
| 513 7590 04/11/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021 | | | | |
| EXAMINER | | | | |
| HECKERT, JASON MARK | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1792 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 04/11/2008 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/765,182

Applicant(s)

KAJITA ET AL.

Examiner

JASON HECKERT

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/11/08 has been entered.

Response to Arguments

2. Due to the applicant's amendments to the claims, the previous rejections are rendered moot.

3. Specifically, the applicant has amended the claims to include language regarding the shape of the scattering prevention cups. The claimed shape is known in the prior art. Furthermore, changes in shape or form, without a showing of unexpected results, have been held to be obvious. *In re Dailey* 149 USPQ 47, 50 (CCPA 1966). Utilizing such a shape in the well known raising and lowering of scattering prevention cups is also considered to be obvious in view of the prior art.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (Tomita) in view of Doi et al. (Doi). Tomita teaches a substrate washing device and a method for washing substrates. The device of Tomita comprises a rotatable substrate holder 12, a chamber surrounding the substrates and rinsing nozzles 15 and 16. Tomita shows that nozzle 16, on the reverse side of the holder, sprays fluid onto the substrate holder. The dashed line shows a horizontal component to the movement of said fluid emitting from nozzle 16. The cleaned surface of the holder is upwards in relation to the nozzle 16. The manner in which an apparatus operates is not germane to the issue of patentability of the apparatus itself. In regards to claim 8, fluid is also ejected laterally from nozzle 15 to clean the chamber simultaneously (Fig 1: col. 3, lines 8-10, col. 5, lines 8-49). Tomita does not describe the scattering prevention cups having the shape of the instant application. Such shape is known in the prior art. Additionally, movable cups are very well known as well. Doi shows a movable cup 76 that meets the structural limitations of claims 1 and 8. Narrow part 81 connects to a widening part of 76, which has its widest diameter at the base. It would have been obvious at the time of invention to modify Tomita and include a scattering cup of the shape of Doi, in order to limit the scattering of fluid as is known in the art.

6. In regards to claim 8, Tomita shows that it is known at the time of the invention to eject fluid from a nozzle to clean the scattering prevention structure. Doi shows a movable substrate holder, and it is well known to raise and lower the holder accordingly throughout the treatment process. Thus, the claimed method steps are obvious to one skilled in the art.

7. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita in view of Doi and further in view of Hashimoto et al. (US Patent 5,945,161) or Costigan et al. (US Patent 6,090,534). Tomita does not disclose a reverse side nozzle capable of delivering fluid to the rear surface of the substrate. Such nozzles are known in the art. Hashimoto discloses rear surface nozzles 145 and Costigan discloses backside rinse nozzles 355. Both are used to wash or rinse the rear surface of the substrate. Thus, it would have been obvious at the time of the invention to modify Tomita in view of Doi, as stated above, and include rear surface nozzles, as disclosed by Hashimoto and Costigan, in order to wash and rinse the rear surface of the substrate.

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita in view of Doi in view of Hashimoto et al. (or Costigan et al.) and further in view of Masui. Tomita discloses various nozzles 4, 7, 9 that are located above the holder. Furthermore, nozzle 9 is located laterally outward of the holder. Tomita does not disclose a nozzle located on the cup. Masui discloses nozzle 5 that is located on a cup 6. Thus, this arrangement and location of a nozzle is known. It would have been obvious at the time of the invention to modify Tomita in view of Doi and Hashimoto, as stated above, and further include a nozzle on a cleaning cup, as disclosed by Masui, in order to deliver fluids to the substrate.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita in view of Doi and further in view of Tanaka et al (US Patent 5,823,130). Tomita discloses multiple nozzles above the holder, but does not disclose them as being above an individual cup. This arrangement is well known in the art. Tanaka et al. discloses

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nozzles 23 and 31 that are located above the holder and cup. It would have been obvious at the time of the invention to modify Tomita in view of Doi, as stated above, and further include nozzles above an individual cup, as disclosed by Tanaka, in order to deliver fluids to the surface of the substrate.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. U.S. Patent 5,252,137 to Tateyama. Tateyama also shows a substrate cup 4 possessing the shape of the cup present in the instant application (figure 2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

JMH